UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/359,838	07/23/1999	STANLEY E. KAY	PD-990149	3345

20991 7590 03/24/2003

HUGHES ELECTRONICS CORPORATION
PATENT DOCKET ADMINISTRATION
BLDG 001 M/S A109
P O BOX 956
EL SEGUNDO, CA 902450956

EXAMINER
ROBUSTELLI, MICHAEL E

ART UNIT	PAPER NUMBER
2697	

DATE MAILED: 03/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/359,838	KAY ET AL.	
	Examiner	Art Unit	
	Michael E Robustelli	2697	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-45 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-45 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 16 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a "spare section" that is "between said first plurality of time slots and said second plurality of time slots," does not reasonably provide enablement for "third plurality of time slots." The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. While the specification discloses a spare section in between the overhead and the traffic section of the frame (which both contain a plurality of time slots), it does not teach of the spare section containing a plurality of time slots, this limitation will therefore be ignored in the following rejection of claim 16, and should henceforth be eliminated from the claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

> e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 40 and 45 is rejected under 35 U.S.C. 102(e) as being anticipated by Mahany (U.S. Patent No. 6,018,555).

-Regarding claim 40, Mahany teaches of a preamble portion including a first unique work, a second unique word, and a data/spare section between the first and second unique words (1109, 1115 and 1119 respectively of Fig. 11), where the data/spare section defines a preamble split length. The data/spare section is interpreted as meaning a segment of bits in the pre-amble that is reserved to include in it data, or not. A preamble split length is interpreted as meaning the size of the gap between the first and second unique word. Since the data/spare section is the gap between the first and second unique word, it size inherently defines the preamble split length. The preamble portion is followed by a data portion, wherein the data portion contains data (Col. 4, lines 29-32).

-Regarding claim 45, Mahany teaches of a preamble portion including a first unique work, a second unique word, and a data/spare section between the first and second unique words (1109, 1115 and 1119 respectively of Fig. 11), where the data/spare section defines a preamble split length. The data/spare section is interpreted as meaning a segment of bits in the pre-amble that is reserved to include in it data, or not. Since the data/spare section is the gap between the first and second unique word, it size inherently defines the preamble split length. The preamble portion is followed by a data portion, wherein the data portion contains data (Col. 4, lines 29-32). It is inherent in the design that data be placed in both the data and data/spare portions.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-3, 10, 17-18, 24-26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moulsley (U.S. Patent No. 6,407,993) in view of Brickman (U.S. Patent No. 4,328,543).

-Regarding claim 1, Moulsley discloses a frame format including an overhead section followed by a data section (Col. 3, lines 43-45). The traffic sections contain numerous time slots (Col. 3, lines 38-45; Col. 6, lines 2-4). Also indicated are multiple data bursts, each contained in the aforementioned data time slots. Moulsley also proposes that each data burst may be modulated with one of many modulation techniques on a burst-by-burst basis (Col. 4, lines 6-11). Moulsley fails to explicitly show an overhead portion including a first plurality of time slots. Moulsley does the header including multiple concatenated fields (Col. 6, lines 1-15), and further discusses partitioning the header in order to perform different modulation techniques of the separate partitions (Col. 4, lines 55-62).

Brickman teaches of an air interface frame format that includes an overhead section ("control field," of Fig. 2) that is divided into time slots ("channels," Col. 6, lines 33-37). Every frame further contains five overhead bursts contained within the time slots (Col. 6, lines 48-58).

At the time of invention it would have been obvious to one having ordinary skill in the art to provide a frame with an overhead portion consisting of a plurality of time slots, wherein overhead bursts are located within respective ones of said plurality of time slots. One of ordinary skill in the art would have been motivated to do this so as to delineate the information contained in the overhead.

-Regarding claim 2, Moulsley further teaches that the header can contain multiple forms of modulation (Col. 4, lines 55-62). This indicates that it is a design choice of the user whether or not to use only one form of modulation in the overhead.

-Regarding claim 3, Moulsley further teaches of the use of QSPK (Table on Col. 3) for distant receivers (Col. 4, lines 12-16). Moulsley further teaches of assuring "robust" transmission of the header information (Col. 4, lines 55-62).

- Regarding claim 10, Moulsley further teaches of using QPSK, 16-QAM and 64-QAM (Col. 3, table 1; Col. 4, lines 15-16).

-Regarding claim 17, Moulsley further teaches of the variation in length of data (or traffic) bursts (See Figure 2).

-Regarding claim 18, Moulsley teaches of a frame format including an overhead section followed by a data section (Col. 3, lines 43-45). Both the overhead and data sections contain numerous time slots (Col. 3, lines 38-45; Col. 6, lines 2-4). Also indicated are multiple data bursts, each contained in the aforementioned data time slots. Moulsley also proposes that each

data burst may be modulated with one of many modulation techniques on a burst-by-burst basis (Col. 4, lines 6-11). Moulsley fails to disclose the method for group multiple frames together in order to create a super frame air interface.

Brickman introduces the superframe format that divides into 4 frame groups, each of which further divides into 5 frames (Col. 7, lines 4-5 and 12-13).

This method is commonly used to organize transmission data in frame formats. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Brickman's teaching in Moulsley's system. The motivation for doing this would be to be to increase transmission efficiency by providing organizational format.

-Regarding claim 24, Moulsley teaches of a frame format including an overhead section followed by a data section (Col. 3, lines 43-45). The traffic sections contain numerous time slots (Col. 3, lines 38-45, and 6, lines 2-4). Also indicated are multiple data bursts, each contained in the aforementioned data time slots. Moulsley also proposes that each data burst may be modulated with one of many modulation techniques on a burst-by-burst basis (Col. 4, lines 6-11). Moulsley fails to explicitly show an overhead portion including a first plurality of time slots. Moulsley does the header including multiple concatenated fields (Col. 6, lines 1-15), and further discusses partitioning the header in order to perform different modulation techniques of the separate partitions (Col. 4, lines 55-62).

-Regarding claim 25, Moulsley further teaches of the use of QPSK, 16-QAM and 64-QAM (Col. 3, table 1, and 4, lines 15-16).

-Regarding claim 26, Moulsley further teaches that the header can contain multiple forms of modulation (Col. 4, lines 55-62). This indicates that it is a design choice of the user whether or not to use only one form of modulation in the overhead.

7. Claims 4-7 and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moulsley (US Patent 6,407,993) in view of Brickman (U.S. Patent No. 4,328,543) and in further view of Kolze (US Patent 6,285,681).

-Regarding claims 4-7, Moulsley and Brickman, as discussed with the rejection of claim 1, differ from claims 4-7 Moulsley fails to explicitly teach the method of including different types of bursts.

Kolze anticipates the use of single and quad bursts types, such that single bursts carry 1 ATM cell/burst and quad bursts carry 4 ATM cells/burst (Col. 8, lines 20-22). Kolze further teaches that the duration of a quad burst (4 ATM cells/burst), in 16-QAM modulation, is 3 times as long as the duration of a single burst (1 ATM cell/burst). (See table 4, "total burst duration").

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize single and quad burst types. One of ordinary skill in the art would have been motivated to do this because quad bursts transmit large numbers of cells with greater throughput (See table 1, overhead efficiency), while the single bursts allow for the transmission of lesser number of cells.

-Regarding claims 27-28, Moulsley and Brickman, as discussed with the rejection of claim 1, differ from claims 27-28 Moulsley fails to explicitly teach the method of including different types of bursts.

Kolze anticipates the use of single and quad bursts types, such that single bursts carry 1 ATM cell/burst and quad bursts carry 4 ATM cells/burst (Col. 8, lines 20-22).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize single and quad burst types. One of ordinary skill in the art would have been motivated to do this because quad bursts transmit large numbers of cells with greater throughput (See table 1, overhead efficiency), while the single bursts allow for the transmission of lesser number of cells.

8. Claims 8-9, 11-13, 29-30 and 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moulsley (US Patent 6,407,993) in view Brickman (U.S. Patent No. 4,328,543), and in further view of Jasper (US Patent 5,533,004).

-Regarding claims 8-9 and 12-13 and 29-30, Moulsley and Brickman as discussed with the rejection of claims 1 and 24, differ from claim 8-9 in that Moulsley and Brickman fail to explicitly teach of bursts using a plurality of modulations, wherein each of said bursts using a particular modulation technique is a duration that is a multiple of a burst using another modulation technique, and furthermore, that the multiple is an integer.

Jasper teaches of a data burst modulated with a high order modulation technique occupies a block with a particular duration. Additionally the integer multiples of that high-order modulation block duration coincide with the duration of lower-order modulation's block (Col. 5, 25-47; Fig. 4 and 5).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to organize bursts of different modulation orders such that their lengths are

multiples of the one with the shortest length (highest ordered). One of ordinary skill in the art would have been motivated to do this because this would allow for a more efficient scheme for assembling a group of multi-modulation bursts onto the same airframe using TDMA.

-Regarding claim 11, Moulsley and Brickman as discussed with the rejection of claim 10, differ from claim 11 in that Moulsley and Brickman fail to explicitly teach that the duration of the QPSK traffic burst is three times as long as the duration of the 64-QAM traffic burst and twice as long as the 16-QAM traffic burst.

Jasper teaches of a data burst modulated with a high order modulation technique occupies a block with a particular duration. Additionally the integer multiples of that high-order modulation block duration coincide with the duration of lower-order modulation's block (Col. 5, 25-47; Fig. 4 and 5). The burst modulated with QPSK is twice as long as the burst modulated with 16-QAM. Though the burst modulated with QPSK is four times as long as the burst modulated with 64-QAM this is due to the 2/3 coding rate employed, which is a design choice. For instance Moulsley teaches of QPSK being coded at a rate that could accomplish this (Table on Col. 3 of Moulsley, Compare Bps/Hz of 4-PSK with 64-QAM).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to organize bursts of different modulation orders such that their lengths are multiples of the one with the shortest length (highest ordered). One of ordinary skill in the art would have been motivated to do this because this would allow for a more efficient scheme for assembling a group of multi-modulation bursts onto the same airframe using TDMA.

-Regarding claims 38-39, Moulsley discloses a frame format including an overhead section followed by a data section (Col. 3, lines 43-45). The traffic sections contain numerous

time slots (Col. 3, lines 38-45, and 6, lines 2-4). Also indicated are multiple data bursts, each contained in the aforementioned data time slots. Moulsley also proposes that each data burst may be modulated with one of many modulation techniques on a burst-by-burst basis (Col. 4, lines 6-11). Moulsley fails to explicitly show an overhead portion including a first plurality of time slots. Moulsley does the header including multiple concatenated fields (Col. 6, lines 1-15), and further discusses partitioning the header in order to perform different modulation techniques of the separate partitions (Col. 4, lines 55-62). Furthermore, Moulsley fails to explicitly teach of traffic bursts modulated with respective ones of the plurality of modulation modes comprise different number of the time slots.

Brickman teaches of an air interface frame format that includes an overhead section ("control field," of Fig. 2) that is divided into time slots ("channels," Col. 6, lines 33-37). Every frame further contains five overhead bursts contained within the time slots (Col. 6, lines 48-58).

Jasper teaches of a data burst modulated with a high order modulation technique occupies a block with a particular duration. Additionally the integer multiples of that high-order modulation block duration coincide with the duration of lower-order modulation's block (Col. 5, 25-47; Fig. 4 and 5). The burst modulated with QPSK is twice as long as the burst modulated with 16-QAM.

At the time of invention it would have been obvious to one having ordinary skill in the art to provide a frame with an overhead portion consisting of a plurality of time slots, wherein overhead bursts are located within respective ones of said plurality of time slots. One of ordinary skill in the art would have been motivated to do this so as to delineate the information contained in the overhead. At the time the invention was made, it would have been obvious to a

person of ordinary skill in the art to organize bursts of different modulation orders such that their lengths are multiples of the one with the shortest length (highest ordered). One of ordinary skill in the art would have been motivated to do this because this would allow for a more efficient scheme for assembling a group of multi-modulation bursts onto the same airframe using TDMA.

9. Claims 14, 15 and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moulsley (US Patent 6,407,993) in view Brickman (U.S. Patent No. 4,328,543), and in further view of Dove (US Patent 6,310,891).

-Regarding claim 14-15, Moulsley and Brickman, as discussed with the rejection of claim 1 above, differ from claim 14-15 in that they fail to explicitly teach of a method for carrying both synchronous and asynchronous data cells through the same frame.

Dove teaches the method of multiple modes of transport within a frame. Furthermore, Dove suggests that these modes comprise synchronous (TDM) and asynchronous transport modes (ATM) (Col. 2, lines 32-35).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize a frame format, which could include both TDM and ATM modes.

One of ordinary skill in the art would have been motivated to do this because this would enable transmission of a range of multimedia services including telephone, video and computer data (Dove, Col. 1, lines 26-29).

-Regarding claims 19-21, Moulsley teaches of a frame format including an overhead section followed by a data section (Col. 3, lines 43-45). The traffic sections contain numerous time slots (Col. 3, lines 38-45; Col. 6, lines 2-4). Also indicated are multiple data bursts, each

contained in the aforementioned data time slots. Moulsley fails to explicitly show an overhead portion including a first plurality of time slots. Moulsley does teach that the header include multiple concatenated fields (Col. 6, lines 1-15), and further discusses partitioning the header in order to perform different modulation techniques of the separate partitions (Col. 4, lines 55-62). Also, Moulsley fails to explicitly teach of a method for carrying both synchronous and asynchronous data cells through the same frame.

Brickman teaches of an air interface frame format that includes an overhead section ("control field," of Fig. 2) that is divided into time slots ("channels," Col. 6, lines 33-37). Every frame further contains five overhead bursts contained within the time slots (Col. 6, lines 48-58).

Dove teaches the method of multiple modes of transport within a frame. Furthermore, Dove suggests that these modes comprise synchronous (TDM) and asynchronous transport modes (ATM) (Col. 2, lines 32-35).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize a frame format, which could include both TDM and ATM modes, to provide a frame with an overhead portion consisting of a plurality of time slots, wherein overhead bursts are located within respective ones of said plurality of time slots. One of ordinary skill in the art would have been motivated to make these combinations so as to delineate the information contained in the overhead, and to enable transmission of a range of multimedia services including telephone, video and computer data (Dove, Col. 1, lines 26-29).

-Regarding claim 22, Moulsley further teaches of a modulating each of said plurality of traffic bursts using a respecting one of a plurality of modulation modes (Col. 4, lines 6-11).

-Regarding claim 23, Moulsley further teaches of using QPSK, 16-QAM and 64-QAM (Col. 3, table 1; Col. 4, lines 15-16).

-Regarding claims 31-33, Moulsley and Brickman, as discussed with the rejection of claim 24 above, differ from claims 31-33 in that they fail to explicitly teach of a method for carrying both synchronous and asynchronous data cells through the same frame.

Dove teaches the method of multiple modes of transport within a frame. Furthermore, Dove suggests that these modes comprise synchronous (TDM) and asynchronous transport modes (ATM) (Col. 2, lines 32-35).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize a frame format, which could include both TDM and ATM modes.

One of ordinary skill in the art would have been motivated to do this because this would enable transmission of a range of multimedia services including telephone, video and computer data (Dove, Col. 1, lines 26-29).

-Regarding claim 34, Moulsley further teaches variation in length of data (or traffic) bursts (See DB1-DB4 of Figure 2).

-Regarding claim 35-37, Moulsley teaches of a frame format including an overhead section followed by a data section (Col. 3, lines 43-45). The traffic sections contain numerous time slots (Col. 3, lines 38-45; Col. 6, lines 2-4). Also indicated are multiple data bursts, each contained in the aforementioned data time slots. Moulsley fails to explicitly show an overhead portion including a first plurality of time slots. Moulsley does teach that the header include multiple concatenated fields (Col. 6, lines 1-15), and further discusses partitioning the header in order to perform different modulation techniques of the separate partitions (Col. 4, lines 55-62).

Also, Moulsley fails to explicitly teach of a method for carrying both synchronous and asynchronous data cells through the same frame.

Brickman teaches of an air interface frame format that includes an overhead section ("control field," of Fig. 2) that is divided into time slots ("channels," Col. 6, lines 33-37). Every frame further contains five overhead bursts contained within the time slots (Col. 6, lines 48-58).

Dove teaches the method of multiple modes of transport within a frame. Furthermore, Dove suggests that these modes comprise synchronous (TDM) and asynchronous transport modes (ATM) (Col. 2, lines 32-35).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize a frame format, which could include both TDM and ATM modes, to provide a frame with an overhead portion consisting of a plurality of time slots, wherein overhead bursts are located within respective ones of said plurality of time slots. One of ordinary skill in the art would have been motivated to make these combinations so as to delineate the information contained in the overhead, and to enable transmission of a range of multimedia services including telephone, video and computer data (Dove, Col. 1, lines 26-29).

10. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moulsley (US Patent 6,407,993) in view Brickman (U.S. Patent No. 4,328,543), and in further view of Tayebi et al. (U.S. Patent No. 6,373,827).

-Regarding claim 16, Moulsley and Brickman, as discussed with the rejection of claim 1, differ from claim 16, in that they fail to explicitly teach of a data/spare section between the overhead and traffic section.

Tayebi discloses a data/spare section that is included at the end of the header, just before the data section (Col. 10, lines 6-11; Fig 5b).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to include a data/spare section between the overhead and traffic section. One of ordinary skill in the art would have been motivated to do this because a spare positioned between the overhead and traffic section could be use to carry data or act as a guard space.

11. Claims 41-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mahany (U.S. Patent No. 6,018,555) in view of Kolze et al. (U.S. Patent No. 6,285,681).

-Regarding claim 41, Mahany, as discussed with the rejection of claim 40, fails to teach of a post amble portion following the data portion wherein the post amble portion includes a parity.

Kolze teaches of a post amble portion following the data portion wherein the post amble portion includes a parity ("FEC PARITY," 42 of Fig. 2 and 3).

At the time of invention it would have been obvious to one of ordinary skill in the art to include a parity as a post amble. One of ordinary skill in the art would have been motivated to include a parity section so that errors could be detected in the data portion.

-Regarding claim 42, Mahany, as discussed with the rejection of claim 40, fails to teach of a guard and a ramp preceding the first unique word, and being next to each other.

Kolze teaches of a guard and a ramp preceding the preamble (which in Mahany contains the first unique word), and further they are next to each other.

At the time of invention it would have been obvious to one of ordinary skill in the art to include a guard and ramp field preceding the first unique word, as these are common functions in the art. One of ordinary skill in the art would have been motivated to do this because the guard function prevents overlapping frames and the ramp function allows the system to take into account the power-up of a transmitter to transmission power.

-Regarding claims 43-44, the first or second unique words being less then 16 symbols in length is a design choice.

Response to Arguments

12. Applicant's arguments with respect to claim 1-45 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael E Robustelli whose telephone number is 703-305-8326. The examiner can normally be reached on Monday- Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 703-305-4798. The fax phone numbers for the

organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.

MR

Michael E. Robustelli
March 12, 2003

RICKY NGO
PRIMARY EXAMINER